Cedar /Sammamish Watersheds - WRIA 8

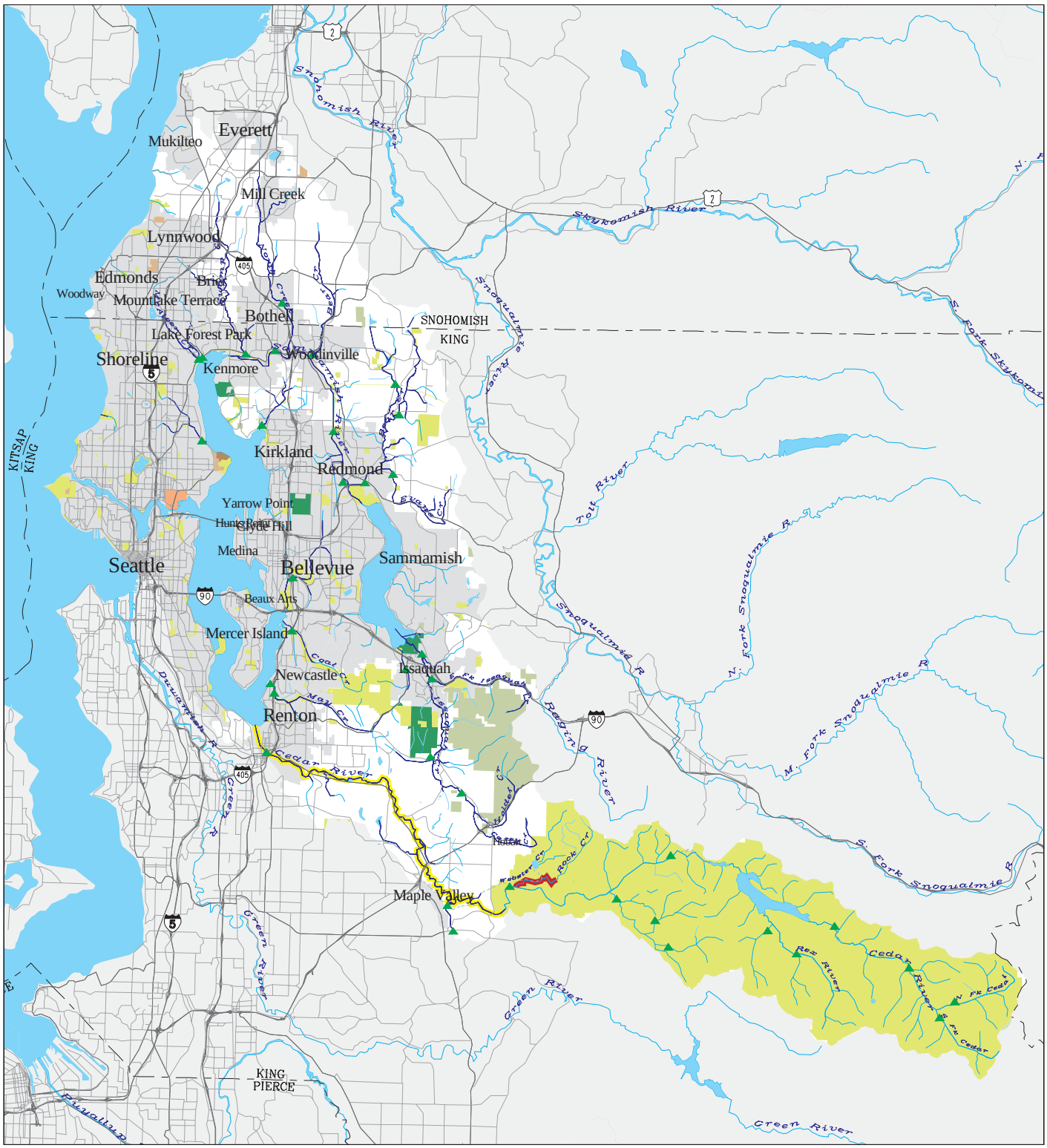
There are numerous streams draining directly into Puget Sound within this WRIA, but little hydrological data is available. Further review of the cedar and Sammamish streams is needed to determine instream flow deficiencies or needs. As with other Puget Sound tributaries, many of the streams in this watershed have undergone significant hydrological changes due to land use modification (roads, extensive development and impervious surfaces, wetland loss, loss of forest cover etc.) One of the expected and observed effects of land use changes and proliferation of exempt wells has been lower base flows, especially in small tributaries.

The Lansburg Diversion Dam diverts up to 22 percent of the mean annual flow of the Cedar River for the City of Seattle. However, during drought conditions the percentage of flow diverted can be much higher. Flows from the upper river are managed under the City of Seattle's HCP. Low flows in the lower watershed are being analyzed by the WRIA 8 flow committee which is investigating alternative stream flow management options.

Rock Creek is seasonal above RM 2.6 and typically flows only from early December to early July. The Washington Conservation Commission's LFA indicates that this creek supports excellent habitat quality throughout its length, and increased flows would be expected to provide significant benefits. The City of Kent operates a well field near RM 1.7which may withdraw as much as 75 percent of the base flow from the creek. Instream flows can drop as low as 1.9 cfs when chinook and sockeye adults are migrating. These low flows can also significantly affect rearing juvenile steelhead, cutthroat, and coho. Due to the apparent direct continuity of the well field with surface flows, this may be one of the few instances where the acquisition of well water may be justified to increase instream flows during this initial stage of stream flow restoration.

The North Fork of Issaquah Creek is also significantly affected by groundwater withdrawals. However, without additional information regarding which of the ground water wells may be most contributing to low surface flow, ground water acquisition should not be a priority. The initial phase of stream flow restoration is focused on the acquisition of surface water rights unless continuity between ground and surface water is well established.

There are numerous limiting factors to salmonid recovery in the watershed and although stream flow is limiting, it appears relatively unfeasible to address during current flow restoration efforts and funding. In general, most withdrawals in the watershed are associated with groundwater or large municipal surface diversions. It is anticipated that there is little opportunity for cost effective water acquisition in this basin with the possible exception of Rock Creek because it is unlikely that municipalities will willingly sell their water rights due to the demand and cost of alternatives in this area.



Stream Flow Prioritization: Cedar/Sammamish WRIA 8

Water Resources Program

WASHINGTON STATE DEPARTMENT OF ECOLOGY

GIS Technical Services
12/13/02
sfp8-mpla

- US Forest Service
- US Wildlife Refuge
- US Parks/Recreation
- USFS Wilderness Area
- Bureau of Land Management
- US Dept. Defense/Energy
- Wa. Dept. of Fish & Wildlife
- Wa. Dept. of Naural Reasources
- State School/Hospital/Prison
- Wa. Parks & Recreation
- City/County Watershed/Park
- Tribal Lands
- Incorporated City
- USGS Stream Flow Gage
- Ecology Stream Flow Gage
- Water Right Purchase

Miles
0 3.5 7

- Low priority stream
- Medium priority stream
- High priority stream
- Salmon/Bull Trout Spawning/Rearing area
- Other streams
- Canal/ditch/pipe
- County
- Highway
- Local Paved Roads

N

Subject to Revision

WDNR/Ecology - Major Public Lands 2002 100k
WDFW/Ecology - Hydrography, 2000 100k
Ecology - WRIA, 2002 24K
WDOT - Transportation, 2001 24K
WDFW - Stream Flow Prioritization 2002
WDFW - Spawning/Rearing Areas 2002 100k
USGS/Ecology - Stream Gages 1:100k